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Civil Engineer

AIR QUALITY COMPLIANCE



COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air Force Instruction (AFI) implements Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*, by identifying Air Force requirements for an air quality compliance program. In the United States and its territories, use this guidance for compliance with applicable Department of Defense (DoD) directives and Federal, State, and local standards for air quality. Indoor air quality program requirements are given in an Air Force Surgeon General publication. Air quality compliance program requirements for overseas installations are contained in AFI 32-7006, *Environmental Programs in Foreign Countries*.

SUMMARY OF REVISIONS

This is the initial publication of AFI 32-7040 and aligns with AFPD 32-70, *Environmental Quality*.

Chapter 1

HOW TO USE THIS INSTRUCTION

1.1. Background:

1.1.1. The procedures in this instruction are essential to achieve and maintain compliance with all applicable Federal, State, and local standards for air quality compliance. The applicable Federal standard is 42 U.S.C. 7401. If compliance requirements for air quality are more protective under state and local standards, the more protective requirement must be followed. Air Force activities in foreign countries will manage air quality to achieve and maintain compliance with the DoD final governing standard.

1.1.2. Air quality compliance involves prevention, control, abatement, documentation, and reporting of air pollution from stationary and mobile sources. Stationary sources typically include fixed exhaust stacks or vents. Transportable equipment is subject to stationary source air emission standards. Maintaining compliance with air quality regulations may require reduction or elimination of pollutant emissions from existing sources, and control of new pollution sources.

1.2. Concept:

1.2.1. This instruction is not intended to duplicate Federal, State, and local standards, but provides major commands (MAJCOM) and installations with a framework on the way to do business to comply with these requirements according to AFPD 32-70, *Environmental Quality*. This AFI provides great flexibility to MAJCOMs and bases on how to comply with air quality standards. To maximize the flexibility for MAJCOMs implementing this instruction, the AFI separates "responsibilities" and "basic actions" into two components as shown in this chapter and subsequent chapters.

1.2.2. MAJCOM two-letter offices are responsible for identifying all necessary implementing guidance in their supplemental publications to this AFI. The MAJCOM supplement must identify the specific "actors" who have implementing responsibility and include any "how to" implementing guidance needed to comply with this instruction.

1.3. Responsibilities:

1.3.1. The Assistant Secretary of the Air Force for Manpower, Reserve Affairs, Installations and Environment (SAF/MI) promulgates and oversees policy for air quality compliance.

1.3.2. The Civil Engineer HQ USAF (HQ USAF/CE) develops policy, allocates resources, and oversees execution of air quality compliance programs throughout the Air Force.

1.3.3. MAJCOMs provide execution guidance and oversee implementation of air quality compliance programs at their installations. All references to MAJCOMs in this AFI include the Air National Guard Readiness Center and other agencies designated as "MAJCOM-equivalent."

Chapter 2

COMPLIANCE REQUIREMENTS FOR AIR QUALITY

2.1. Stationary Sources:

2.1.1. Permits and Permit Fees. All activities that operate, modify, demolish, or construct stationary sources will obtain and periodically renew construction or operating permits as required by Federal, State, or local air pollution control agencies. The operating permits program (Title V) is a particularly important part of the *1990 Clean Air Act* Amendments. The *Clean Air Act* Amendments of 1990 establish a nationwide permit program for air pollution sources. Do not operate a source subject to this program without the required permit or other than in specific compliance with the terms of the permit. To do otherwise is a violation of Federal and State criminal law. The goal of Title V is to have States issue federally enforceable operating permits for identified stationary sources. The permits are designed to enhance the ability of the EPA, State, and local regulatory agencies, and private citizens to monitor and enforce the Clean Air Act requirements. Permits will clarify operating, control, record keeping, and reporting requirements for affected stationary sources. Prepare detailed permit applications as required, include compliance plans for non-compliant sources. These plans will accompany each permit application. Failure to comply with any aspect of the compliance plan or permit can be grounds for an enforcement action. Under Title V, installations will be required to pay annual permit fees proportional to the amount of air pollutants. The senior officer on a facility (normally the installation commander), is the responsible party in overall compliance with Title V operating permit requirements, and will sign the permit unless otherwise agreed to in writing by the State and EPA.

2.1.2. Ambient Air Standards Compliance. MAJCOMs ensure that bases' existing or proposed air pollution sources will not degrade ambient air quality. Such demonstrations may involve atmospheric dispersion modeling or monitoring of the effect of emissions on contaminant concentrations in ambient air or source emissions testing. Modeling will be performed according to EPA regulations and guidance.

2.1.3. New Source Performance Standards. Construct and operate each source according to EPA-issued new source performance standards or more stringent State or local requirements. New sources are subject to the most stringent standards.

2.1.4. Existing Source Standards. Bring existing stationary sources into compliance with the standards within the time frame required by the regulatory agency or as specified by variance.

2.1.5. Hazardous Air Pollutants. Comply with all Clean Air Act Title III hazardous air pollutant requirements or any more stringent State or local requirements. Asbestos is a hazardous air pollutant that deserves special attention because, in addition to Clean Air Act regulations, facilities must comply with asbestos regulations under the *Toxic Substances Control Act* and the *Hazardous Materials Transportation Act*. In addition, facilities must comply with the many State and local government asbestos standards, which can be more stringent. Prepare and maintain a comprehensive asbestos management plan that addresses air quality compliance and public/occupant/worker health and safety requirements as well as related requirements described in AFI 32-7042, *Solid and Hazardous Waste Compliance*, and AFI 32-1052, *Facility Asbestos Management*.

2.1.6. Volatile Organic Compounds. Comply with Federal, State, and local volatile organic compound regulations and with HQ USAF policies and guidance for volatile organic compound compliance. Reduce or minimize volatile organic compound emissions and nitrogen oxides emissions in an effort to reduce ambient ozone levels. If traditional control measures do not achieve the Federal ozone standard, regulatory agencies will require nontraditional control strategies.

2.1.7. Firefighter Training and Control Burning. State implementation plans may require compliance for varying degrees of control in open burning for firefighter training or for treatment of explosive waste and other substances when no other feasible alternative exists for controlling air emissions. Comply with the applicable requirements which may include: (1) prior approval for each occurrence from the responsible regulatory agency; (2) burn period restrictions; (3) restrictions on types of fuels and fire extinguishing agents; and (4) limits on opacity of smoke emissions.

2.1.8. Disposal of Emission Residuals. Dispose of pollutants removed by air pollution control equipment according to the requirements of applicable Federal or State regulations. Determine whether emission residuals are classified as hazardous wastes or not.

2.1.9. Emissions Control Technology. New "major sources" located in areas designated as attaining national ambient air quality standards require "best available control technology" as defined by the Clean Air Act. Emission controls for major new sources in nonattainment areas have to achieve a "lowest achievable emission rate" unless an exception with the regulators is obtained. "Reasonably available control technology" is required for existing sources in nonattainment areas, and in most cases is less stringent than new source performance standards or best available control technology. Perform engineering and economic analyses for each project requiring specification or installation of equipment for control of regulated air pollutants. These analyses will ensure that the selected control technology meets air quality compliance requirements, does not create an unacceptable health or safety risk, and is cost effective.

2.2. Mobile Sources:

2.2.1. Fuels and Fuel Standards. Equip all vehicle fueling facilities in the United States with equipment to dispense unleaded gasoline for vehicles with catalytic converters. Contracts for unleaded gasoline are not to exceed specification limits prescribed in Federal regulations (e.g., diesel fuel for highway use is limited to 0.05 percent sulfur by weight). Vehicles designated to operate on unleaded gasoline will, under no circumstances, be altered to receive leaded gasoline or be fueled with leaded gasoline. Begin to procure clean-fuel vehicles as of the 1998 model year in affected nonattainment areas. These vehicles must use clean alternative fuels when operating in affected areas. Clean-fuels include methanol, ethanol, reformulated gasoline, natural gas, liquefied petroleum gas, and electricity. In addition, there may be a requirement to use oxygenated fuel during specific winter months in affected nonattainment areas. Coordinate with local regulatory agencies for requirements.

2.2.2. Vehicle Inspection and Maintenance. Comply with vehicle emissions inspection and maintenance requirements in all areas where States or their subdivisions have adopted such regulations. MAJCOMs are authorized to develop inspection and maintenance procedures for their fleet vehicles as a part of normal preventive maintenance programs.

2.2.3. Fuel Efficiency Outreach Programs. Develop and implement fuel efficiency outreach programs to reduce the petroleum fuel usage by employees and by contractor employees at government-owned contractor-operated facilities.

2.3. Monitoring, Record Keeping, and Reporting. Comply with monitoring and record keeping requirements prescribed in Federal, State, and local standards. Coordinate with Armstrong Laboratory and the Air Force Civil Engineer Support Agency for heating plant monitoring support.

2.3.1. Work Information Management System- Environmental Subsystem. Use the Work Information Management System-Environmental Subsystem air quality management module to report the status of air quality compliance. AFI 32-7002, *Environmental Information Management System*, prescribes guidelines and procedures for using the Work Information Management System-Environmental Subsystem, RCS: HAF-CEV (AR) 9420, *Air Program Overview, Emission Sources and Permits*.

2.4. Air Emission Reduction Credits. The Clean Air Act allows sources to "trade" emissions reduction credits. Credits earned by any source that reduces its emissions beyond its reduction requirements can be traded to another source that could use such credits, in lieu of on site reductions, to meet its reduction obligations. Emission reduction credits are treated as Federal personal property and disposed of according to the appropriate Federal property disposal regulations. Emission reduction credits shall not be obtained in relation to reduction of flying operations.

2.4.1. Emission Reduction Credit Identification. Emission reduction credits can be created as a result of operational changes or base closure. They can be obtained by removing pollutant emitting equipment from service or reducing emissions from equipment, if applicable air quality district allows. One year or as early as possible prior to the departure of the active mission from a currently announced closure base (immediately at bases where the active mission has departed or equipment emitting air emissions are discontinued, or within 6 months of a base closure announcement for future closures), complete an inventory of all existing/potential sources of emission reduction credits and have a legal review prepared summarizing applicable air quality district regulations on emission reduction credits.

2.4.1.1. Forward the inventory and legal review of these emission reduction credits through the MAJCOM/CE to the appropriate regional compliance office. The emission reduction credits will be initially classified as "related personal property emission reduction credits," "operational needs requirement emission reduction credits," or "personal property emission reduction credits on the inventory." The regional compliance office will circulate the inventory to other MAJCOMs and installations in the same air quality district who will identify emission reduction credits they might need. The regional compliance office will then validate the list and forward it with comments back to the appropriate MAJCOM. MAJCOMs will review/validate the emission reduction credits/categories, coordinate with HQ USAF/CE, and submit to SAF/MI for final approval.

2.4.2. Emission Reduction Credit Application. Apply for emission reduction credits as required by the regulatory agency after determining if adequate funds exist for the fees. Base realignment and closure funds may be used to conduct the emission reduction credit inventory and to pay for application fees for installations slated for closure. MAJCOMs must submit their requirements to the Air Force Base Conversion Agency (AFBCA) in accordance with AFBCA programming procedures. MAJCOMs receiving emission reduction credits from closure bases will reimburse the base realignment and closure account for its proportionate share of the costs of the inventory and application fees. Reimbursement is not required if the receiving installation is a base realignment and closure realignment site.

2.4.3. Emission Reduction Credit Disposition. Once the air quality district issues the emission reduction credits, and SAF/MI has approved, dispose of emission reduction credits as described below.

2.4.3.1. Operational needs requirement emission reduction credits can be banked for the requirements of the originating installation or can be transferred to another Air Force organization that would need to buy the credits.

2.4.3.2. Related personal property emission reduction credits will be disposed of in the same manner as the real property on the inventory to which they are "related."

2.4.3.3. Screen emission reduction credits identified as excess personal property with other DoD and other Federal agencies. Thereafter, the installation will transfer any remaining emission reduction credits as surplus property to the General Services Administration for disposal under their regulations.

2.4.3.4. SAF/MI will resolve any disputes over disposition of emission reduction credits.

2.5. Pollution Prevention. Reduction in air emissions at a base may be a result of voluntary or mandated pollution prevention activities. Use AFI 32-7080, *Pollution Prevention Programs*, for pollution prevention requirements, procedures, and guidelines.

2.6. Training and Licensing. Identify requirements for operator licensing or certification. Develop and implement a program to provide required personnel training necessary to achieve and maintain a sufficient number of licensed or certified operators of base-level air emission sources.

2.7. Planning:

2.7.1. Compliance Planning. Develop and implement a comprehensive air quality compliance planning program based on and including requirements of the *Federal Agency Pollution Abatement Plan* described in the Office of Management and Budget Circular A-106.

2.7.1.1. As a minimum, the compliance planning shall include the following elements: (1) emission inventory; (2) identification of major sources; (3) summary of permit requirements with a comparison to the regulatory requirements and regulatory schedule; and (4) integration of pollution prevention plans and air emission mitigation strategies for each base.

2.7.2. Episode Planning. Where required, develop and implement a contingency plan for air pollution emergency episodes. Identify all actions that can reasonably be taken without compromising essential services and mission responsibilities.

2.7.3. New Source Planning. When planning and/or designing a new emission source or modifying an existing source, coordinate review of the design with responsible EPA, State, or local authorities at the earliest practicable time.

2.7.4. Emergency Planning. Use AFI 32-7043, *Hazardous Material Emergency Planning and Response Compliance*, for emergency planning.

2.7.5. Conformity Planning. Per section 176 of the Clean Air Act, EPA related rule, and State conformity regulation; analyze Air Force planned actions for conformity with the applicable state implementation plan for the purpose of eliminating or reducing violations of the National Ambient Air Quality Standards and achieving attainment. The Air Force is responsible for determining if its

actions conform to the applicable state implementation plan. As part of the planning process, planners will complete the conformity analysis as required. A conformity determination may be required even if no environmental assessment or environmental impact statement is required. SAF/MIQ must approve all conformity determinations.

2.8. Emissions Inventory. Prepare and periodically update a comprehensive base air emissions inventory. Inventory data will be provided to Federal, State, and local regulatory agencies as required or upon request. Coordinate with Armstrong Laboratory on inventory development and ensure that base emissions inventory data are transferred to the Air Force emissions inventory repository custodian at Armstrong Laboratory.

2.9. Military Unique Sources. Where military unique sources exist, obtain initial and periodically updated information on EPA, DoD, and Air Force policy and guidelines regarding air quality compliance strategies for these sources.

2.10. Measuring the Effectiveness of Base-Level Air Quality Compliance Programs. Develop and implement management systems to measure the effectiveness of base-level programs. Metrics are presented in AFPD 32-70, *Environmental Quality*.

2.10.1. Environmental Compliance Assessment and Management Program. Use *the Environmental Compliance Assessment and Management Program* as a tool for achieving, maintaining, and monitoring Air Force compliance. The cornerstone of the *Environmental Compliance Assessment and Management Program* is the annual internal self-evaluation. The *Environmental Compliance Assessment and Management Program* includes a protocol for air quality compliance. Complete *Environmental Compliance Assessment and Management Program* requirements are given in AFI 32-7045, *Environmental Compliance Assessment and Management Program*.

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The Civil Engineer

Attachment 1

ABBREVIATIONS, ACRONYMS, AND TERMS

Abbreviations and Acronyms

AFB—Air Force Base

AFBCA—Air Force Base Conversion Agency

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

DoD—Department of Defense

EPA—United States Environmental Protection Agency

HQ USAF/CE—Headquarters United States Air Force/Civil Engineering

HQ USAF/CEV—Headquarters United States Air Force/Civil Engineering Directorate of Environmental Quality

MAJCOM—Major Command

OSD—Office of the Secretary of Defense

SAF/MI—The Assistant Secretary of the Air Force Manpower, Reserve Affairs, Installations and Environment

SAF/MIQ—The Deputy Assistant Secretary of the Air Force for Environment, Safety and Occupational Health

USAF—United States Air Force

Terms

Air contaminant—Any particulate matter, gas, or combination thereof, other than water vapor or natural air.

Air dispersion modeling—Computer simulation of the emissions from a source to predict concentrations of desired compounds at selected receptors. Meteorological information and source emissions data are necessary model inputs. Modeling is often an important part of permitting, environmental assessments, and risk assessment activities.

Air pollutant—Any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material and byproduct material) substances or matter which emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term "air pollutant" is used.

Air pollution—The presence of contaminant or pollutant substances in concentrations that interfere with human health or welfare or produce other harmful environmental effects.

Air pollution episode—A period of abnormally high concentration of air pollutants, often a result of low winds and temperature inversion, that can cause illness and death.

Air quality control region—An area designated by the Federal Government in which communities share a common air-pollution problem. Sometimes several states are involved.

Air quality standards—As prescribed by regulations, the level of pollutants that may not be exceeded during a specific time in a defined area.

Air toxins—See "hazardous air pollutants."

Attainment area—An area considered to have air quality as good as or better than the national ambient air quality standards as defined in the Clean Air Act. An area may be an attainment area for one pollutant and a nonattainment area for others.

Banking—A system for recording qualified air emissions reductions for later use in bubble, offset, or netting transactions. See also "Emissions Trading."

Best available control technology—An emission limit based on the maximum degree of emission reduction that (considering energy, environment and economic impacts, and other costs) is achievable through application of production processes and available methods, systems, and techniques. Best available control technology never allows emissions to exceed levels allowed under any provisions of the Clean Air Act. Use of best available control technology is allowable on a case-by-case basis for major new or modified emissions sources in attainment areas and applies to each regulated pollutant.

Class I, II, and III—Under the Clean Air Act, clean air areas are divided into three classes. Very little pollution increase is allowed in Class I areas, some increase is allowed in Class II areas and even more of an increase is allowed in Class III areas. National parks, national monuments, and wilderness areas receive mandatory Class I protection. All other areas start out as Class II. States can reclassify Class II areas up or down, subject to Federal requirements.

Clean fuels—Any fuel including methanol, ethanol, or other alcohols (including any mixture thereof containing 85 percent or more by volume of such alcohol with gasoline or other fuels), reformulated gasoline, diesel, natural gas, liquefied petroleum gas or power source (including electricity) used in clean fuel vehicles that complies with the emission standards, when using such fuel or power source.

Conformity—The Clean Air Act, section 176(c)(1), requires that any Federal action must conform to the state implementation plan on air quality. Any proposed actions are not to

- Cause or contribute to any new violations of any standard in any area.
- Increase the frequency or severity of any existing violation of any area.
- Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Before implementing any Federal planned actions, the actions must be reviewed to determine any adverse impacts to the applicable state implementation plan. The action is not to proceed if it negatively affects the state implementation plan. In other words, air emissions must not violate any emission limitations established in the state implementation plan for the year and any year with a specified emission goal. The emissions are to include both mobile and stationary sources. Note: Only designated officials have the authority to make a conformity determination that the action (proposal) conforms with the state implementation plan. (SAF/MIQ currently is the lowest level of signature authority for a conformity determination).

Control techniques guidelines—A series of EPA documents designed to assist States in defining reasonably available control methods for sources of volatile organic compounds.

Criteria pollutant—Air pollutants for which national ambient air quality standards have been established. Criteria pollutants include particulate matter whose aerodynamic diameter is equal or less than 10 microns, carbon monoxide, sulfur dioxide, nitrogen oxides, ozone, and lead.

Designated pollutant—An air pollutant that is neither a criteria nor a hazardous pollutant, as described in the Clean Air Act, but for which new source performance standards exist. The Clean Air Act requires States to control these pollutants which include acid mist, total reduced sulfur, and fluorides.

Emission—An emission is any discharge of an air pollutant as defined in the Clean Air Act Amendments of 1990 section 302 (g). These could be discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities, from residential chimneys, and from the exhausts of motor vehicles, locomotives, or aircraft.

Emission inventory—A detailed listing, by source and type, of air pollutants emitted into the atmosphere.

Emission reduction credit—Emission reduction credits are a novel form of property for emissions trading purposes. Emission reduction credits only exist when created in accordance with a system to establish, bank, and trade the emission reduction credits under a State or local implementation plan.

Emissions trading—Regulatory policy (EPA or State) consists of bubbles, netting, emission offsets, and emission reduction banking. These techniques involve creation of surplus emission reductions at certain sources of emissions (e.g. stacks and vents) and using these emission reductions to meet or redefine pollution control requirements applicable to other emission sources. For example a bubble allows a plant complex with several facilities to decrease pollution from some facilities while increasing it from others, as long as total emissions are equal to or less than previous limits. Facilities that trade emissions in this way are treated as though they exist in a bubble in which total emissions are averaged out. Complexes that reduce emissions substantially may be able to "bank" their "credits" or sell them to other industries.

Hazardous air pollutants—Those substances listed in the *Clean Air Act Amendments of 1990*, as well as any added by EPA or States, that have been identified as a serious threats to human health or the environment.

Lowest achievable emission rate—Under the Clean Air Act, this is the more stringent of the following(a) the most stringent emission limit in the implementation plan of any state for a source unless the owner or operator of the proposed source demonstrates that such a limit is not achievable; or (b) the most stringent emission limit achieved in practice. Application of this term does not permit a proposed new or modified source to emit pollutants in excess of existing new source standards.

Major stationary sources—A source is "major" because it emits defined hazardous and criteria pollutants in greater than prescribed amounts or because a Clean Air Act rule applies to it. The Clean Air Act Amendments of 1990 generally defines "major source" in the following ways, but can vary depending upon status of the area and applicable provisions of the Act (See also Title I):

- 100 tons per year of any regulated pollutant.
- 50 tons per year/ 25 tons per year/ 10 tons per year of volatile organic compounds (or nitrogen oxides) in serious, severe, extreme ozone nonattainment areas, respectively.
- 5 tons per year of volatile organic compounds (or nitrogen oxides) if State opts out of the 15%/ 3% reduction provision.
- 50 tons per year of carbon monoxide in serious carbon monoxide nonattainment areas.

- 70 tons per year of particulate matter whose aerodynamic diameter is less than 10 microns in particulate matter whose aerodynamic diameter is equal or less than 10 microns nonattainment areas.
- 10 tons per year/ 25 tons per year of any/ all hazardous air pollutants.

Military unique sources—Sources such as military tactical and combat vehicles, mobile utility support equipment, military aircraft, military turbine engine test stands, open burning and open detonation sites, military unique coating operations, military munitions, and ordnance firing and bombing activities for training and rocket engine testing.

Maximum achievable control technology—Emission-control technology for major sources of hazardous air pollutants to achieve maximum reduction in emissions, taking into account the cost.

Monitoring—Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, animals, and other living things.

National Ambient Air Quality Standards—Criteria pollutant standards established by EPA for ambient air throughout the country.

New source—Any stationary source that is built or modified after publication of final or proposed regulations that prescribe a standard of performance intended to apply to that type of emission source.

New source performance standards—Uniform national EPA air emission and water effluent standards that limit the amount of pollution allowed from new or existing sources that have been modified. New source performance standards can be found in 70 *Code of Federal Regulations* Part 60.

Nonattainment area—Geographic area that does not meet one or more of the national ambient air quality standards for the criteria pollutants designated through the Clean Air Act.

Operational needs requirement emission reduction credit—Emission reduction credits in an air quality district where the base is closing which the Air Force would justifiably need to buy to fulfill its operations at another Air Force facility in the same air quality district or in any other air quality district that would accept transfer of the credits. Operational needs requirement emission reduction credits include all emission reduction credits needed for the Installation Restoration Program.

Ozone transport region—Ozone pollution is carried from one state to another by prevailing winds, particularly in the Northeast. The Clean Air Act Amendments of 1990 require establishment of ozone transport regions where certain emissions control measures are required.

Personal property emission reduction credit—Emission reduction credits in an air quality district that are left after "operational needs requirement" emission reduction credits and "related personal property" emission reduction credits have been transferred. These credits will be subject to final disposition using the existing personal property disposal mechanisms, including screening with other DoD and Federal agencies, to fulfill existing requirements.

Precursors of a criteria pollutant—Precursors are those pollutants that contribute to the formation of a criteria pollutant. For ozone, precursors are nitrogen oxides (unless an area is exempted from nitrogen oxides requirements under the Clean Air Act, section 182 (f)), and volatile organic compounds; and for particulate matter whose aerodynamic diameter is less than 10 microns, precursors are those pollutants described in the nonattainment area applicable state implementation plan as significant contributors to the particulate matter whose aerodynamic diameter is less than 10 microns levels.

Prevention of significant deterioration—EPA program in which State and/or Federal permits restrict

emissions for new or modified sources in places where air quality is already better than required to meet primary and secondary ambient air quality standards.

Reasonably available control technology—The lowest emissions limit that a particular source is capable of meeting by the application of control technology that is both reasonably available and technologically and economically feasible. Reasonably available control technology usually is applied to existing sources in nonattainment areas and in most cases is less stringent than new source performance standards.

Related personal property emission reduction credit—Available emission reduction credits, the removal of which would significantly diminish the value of the property if not transferred with the real property. The Air Force will consider development plans of the reuse groups and determine which emission reduction credits will be available for transfer as related personal property after Air Force "operational needs requirement" emission reduction credits are addressed.

Risk assessment—The qualitative and quantitative evaluation performed in an effort to define the risk posed to human health and/or the environment by the presence or potential presence and/or use of pollutants.

Risk management—The process of evaluating alternative regulatory and nonregulatory responses to risk and selecting among them. The selection process requires consideration of impact to human health and the environment, legal, economic and social factors.

State implementation plans—State plans for the establishment, regulation, and enforcement of air pollution standards. State implementation plans approved by the EPA are Federally enforceable.

Stationary source—A fixed, non-moving producer of pollution, such as power plants and other facilities using industrial combustion processes, paint spray booths, fuel storage tanks, and solvent cleaning facilities.

Tactical vehicle—A motor vehicle built to military specifications or a commercial vehicle used to meet direct transportation support of combat, combat support, or relief operations, or for training of personnel for such operations.

Transportable equipment—Transportable equipment includes generators, compressors, heaters, asphalt kettles, and other such equipment that is not self-propelled but is towed or mounted on a trailer or a self-propelled platform.

Volatile organic compounds—Any organic compound that participates in atmospheric photochemical reactions except for those designated by EPA as having negligible photochemical reactivity.

Attachment 2

MEASURING THE EFFECTIVENESS OF BASE LEVEL AIR QUALITY PROGRAMS

The effectiveness of air quality programs will be assessed by measuring parameters specified by each MAJCOM. As a minimum, report the trend in regulated air pollutant emissions from stationary sources.

Trend reporting is to be started 3 years after the new Federal operating permits are in place. This can be done for one or all criteria pollutants including the hazardous air pollutants as they are compiled into the inventories.

Environmental compliance trend data required by AFPD 32-70, *Environmental Quality*, may also be useful for evaluating air quality programs.

Attachment 3

AIR QUALITY COMPLIANCE LAWS AND REGULATIONS

Federal Legislation:

Clean Air Act. The Clean Air Act regulates air emissions from stationary and mobile sources to protect public health and welfare. States and local agencies have the primary responsibility to prevent and control air pollution. The Clean Air Act Amendments of 1990 represent the most recent legislation for the control of air pollution in the United States. These amendments are the first significant revisions to the Clean Air Act in 13 years. The amended statute strengthens and broadens earlier legislation by setting specific goals and timetables for reducing urban smog, airborne toxins, acid rain, and stratospheric ozone depletion during the next decade and beyond.

Those industries most heavily affected by Clean Air Act Amendments of 1990 include the chemical industry, automobile manufacturers, oil refineries, steel manufacturing plants, and electric utility companies. Although Air Force installations are not specifically targeted by the Clean Air Act Amendments of 1990, they often contain many types of processes that will be affected by the new law. Air Force installations will be subject to the same administrative, procedural, and enforcement standards that any private business would face. Consequently, additional resources will be required to manage air quality programs.

The Clean Air Act contains six major subchapters, which address various aspects of the National Air Pollution Control Program. These are:

Subchapter I	Programs and Activities
Subchapter II	Emissions Standards for Moving Sources
Subchapter III	General Provisions
Subchapter IV	Acid Deposition Control
Subchapter V	Permits
Subchapter VI	Stratospheric Ozone Protection

Major implications for Air Force installations are in subchapters I (Attainment, Hazardous Air Pollutants, Enforcement), V (Permits), and VI (Stratospheric Ozone Protection).

Air emissions from military unique sources are not specifically exempted from regulation under the Clean Air Act. However, regulators generally recognize that regulated air emissions from these sources are difficult to control. At this point, it is not clear how emerging Clean Air Act Amendments of 1990 rule making by EPA will address these sources. For one military unique source, aerospace coating operations, the Clean Air Act Amendments of 1990 directs EPA, in conjunction with DoD and the National Aeronautics and Space Administration, to develop a Control Techniques Guideline.

National Environmental Policy Act, Resource Conservation and Recovery Act, Energy Policy Act, and Other Federal Legislation, Regulations and Executive Orders. Although the Clean Air Act is the most significant and focused legislation for the control of air pollution, other Federal legislation, regulations, and executive orders contain requirements for air quality compliance. Under the National Environmental Policy Act, for example, the EPA has the authority to review and comment on the air quality impacts of major Air Force actions to which the National Environmental Policy Act applies. In addition,

Resource Conservation and Recovery Act Subpart X, Part B permit applications may require extensive assessment of the effect on air quality of open burning and open detonation facilities. Base-level and MAJCOM staff have the responsibility to ensure that air quality compliance requirements under all applicable directives are addressed and not limit their program to consideration of Clean Air Act requirements.

Definition of Facility. Office of Management and Budget Circular No. A106 (December 31, 1974) defines a Federal facility as: "buildings, installations, structures, land, public works, equipment, aircraft, vessels, and other vehicles and property, owned by or constructed or manufactured and so leased to, the Federal Government." In planning for air quality compliance, this definition should be interpreted in conjunction with any definitions of "facility" contained in specific environmental statutes. MAJCOMs must understand that the regulatory definition of "facilities" at a base may significantly affect the base's approach to achieving compliance.

Relationship of Attainment Status and Compliance Requirements. The EPA has classified areas of the country as having "attainment" or "nonattainment" status depending on compliance with national ambient air quality standards. An area may have attained compliance for one or more criteria pollutants and not for others. Air Force facilities located in nonattainment areas will be subject to more aggressive provisions of the Clean Air Act to achieve and maintain National Ambient Air Quality Standards. Major sources located in attainment areas, however, will be subject to prevention of significant deterioration requirements.

State and Local Regulations. The Clean Air Act assigns the primary responsibility for control of air pollutant emissions to the States. The Federal regulations provide a framework within which each State designs specific regulatory strategies to deal with air pollution problems within its boundaries. State programs are formalized in state implementation plans which once approved by the EPA are Federally enforceable. State regulations generally follow the EPA guidelines for State programs, and have many features in common; however, individual regulations will vary depending on the type and severity of air pollution problems within the State or region. State regulations generally establish emission limits for various types of stationary sources and require permits for construction, modification, and operation of sources of air pollutant emissions. Performance testing and periodic or continuous emission monitoring may be required to assure compliance with emissions limits. Both civil and criminal penalties may be imposed on the owner and/or operator of sources that violate permit requirements. In some areas, county, municipal, or district authorities have air quality regulations that also must be addressed in the base's air quality compliance program. State and local air district regulations can be more stringent than Federal rules.